

ABSTRACT

A ceramic honeycomb substrate for use in an automotive catalytic converter system which exhibits improved light-off performance by virtue of a high porosity of 45 to 75 % while still maintaining a wall thickness of greater than 2.0 mil (0.0020 inch, 0.0508 mm), preferably 2.5 mil (0.0025 in., 0.0635 mm) to 7 mil (0.0070 in., 0.1778 mm), and more preferably 2.5 mil (0.0025 in., 0.0635 mm) to 3 mil (0.0030 in., 0.0762 mm). The median pore size is in the range of 2-10 micrometers, and a coefficient of thermal expansion (CTE) (25-800°C) of less than $15 \times 10^{-7}/^{\circ}\text{C}$.